Chapter 11

Biosocial Perspective on the Relationship of Childhood Sexual Abuse, Suicidal Behavior, and Borderline Personality Disorder

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In this chapter we describe and amplify the biosocial etiological theory of borderline personality disorder (BPD) (Linehan 1987, 1993a) and the potential role of childhood sexual abuse in the development of BPD. Particular attention is given to the relationship between sexual abuse and suicidal behavior within this population. We conclude with an overview of dialectical behavior therapy for BPD, which is based on the biosocial theory, and we discuss the treatment of trauma symptoms specifically within this approach.

As discussed throughout this volume, a strong association has been demonstrated between reports of childhood sexual abuse and the diagnosis of BPD. High rates of childhood sexual abuse are reported by inpatients with the BPD diagnosis (Bryer et al. 1987; Ogata et al. 1990; Shearer et al. 1990), BPD outpatients (Herman et al. 1989; Zanarini et al. 1989), emergency room BPD patients (Briere and Zaidi 1989), and adolescent BPD populations (Goldman et al. 1992; Ludolph et al. 1990; Westen et al.

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1990). Furthermore, degree of "borderline pathology" has been positively correlated with degree of reported childhood trauma (Herman et al. 1989) and with reports of more severe sexual abuse in general (Landecker 1992). Direct causal connections between sexual abuse and BPD are inaccurate, however, in that not all people with BPD report histories of sexual abuse, and many people who report histories of sexual abuse do not develop BPD. Questions concerning the validity of reporting obscure this relationship as well.

Rather than asserting that sexual abuse causes BPD, our group has suggested that the typical experience of childhood sexual abuse and the environment in which sexual abuse typically occurs represent the prototypic experience and environment of the individual who develops BPD. That is, the factors that typically coexist with childhood sexual abuse (environmental, interpersonal, and traumatic) are characteristic of the childhood of men and women who also develop BPD. Through a discussion of the biosocial theory of BPD, we demonstrate how these factors, plus certain predispositions, can account for the development of BPD. Thus childhood sexual abuse can be viewed as a model by which to understand the etiology of BPD, rather than as the cause per se.

BIOSOCIAL THEORY

The basic idea in the biosocial theory of BPD is that BPD arises from a combination of biologically based difficulties in the processing of emotions (i.e., in the perception of, reaction to, and modulation of emotions) plus specific environmental circumstances, as well as their transaction over time. The biological components are probably due to a combination of genetic, intrauterine, and developmental factors affecting physiological development. The environmental contributors are any circumstances that neglect, traumatize, or severely punish this emotional vulnerability specifically, or one's emotional self generally—contributors termed by Linehan the *invalidating environment* (see below).

The result of the combined biological vulnerability to emotions and the invalidating environment is a fundamental disrup-

tion of the emotion regulation system. According to the theory, emotion dysregulation in individuals with BPD consists of two factors: emotional vulnerability and deficits in the ability to regulate emotions. The components of emotional vulnerability are hypothesized to be high sensitivity to emotional stimuli, emotional intensity, and slow return to emotional baseline. High sensitivity refers to the tendency to pick up emotional cues easily, react quickly, and have a low threshold for emotional reaction. In other words, in individuals with this trait it does not take much to provoke an emotional reaction. Emotional intensity refers to extreme reactions to emotional stimuli, which frequently disrupt both cognitive processing and the ability to self-soothe. Slow return to baseline refers to reactions' being long-lasting. This trait in turn leads to narrowing of the attention toward mood-congruent aspects of the environment, biased memory, and biased interpretations (Bower 1981; Gilligan and Bower 1984), all of which contribute to maintaining the original mood state and a heightened state of arousal. Linehan views emotion dysregulation as the core pathology of BPD and views all problematic behaviors of individuals with BPD as functionally related to regulating emotions or as natural outcomes of dysregulated emotions.

The biological and environmental components of the biosocial theory are discussed next, with particular focus on the possible role of childhood sexual abuse in the development of emotion dysregulation and BPD.

Biological Factors

The biological factors influencing the development of BPD are probably varied, including genetic influences, harmful intrauterine events, and childhood environmental effects on development of the brain and nervous system. The limbic system has been most commonly associated with emotion regulation, and there are some data suggesting that borderline individuals have a low threshold for activation of limbic structures (Cowdry et al. 1985), demonstrated as high rates of complex partial seizures, episodic dyscontrol, and attention deficit disorders in this population. In addition, individuals with BPD have also been re-

ported to have significantly more electroencephalographic (EEG) dysrhythmias than do depressed control patients (Cowdry et al. 1985; Snyder and Pitts 1984). Other studies, however, have not found differences between individuals with BPD and those with other personality disorders in prevalence of dysrhythmias, suggesting that EEG dysrhythmias may not be specific to BPD (e.g., Cornelius et al. 1989).

Two studies investigating neuropsychological testing among outpatients with BPD suggest that individuals with BPD may have neurological deficits, perhaps related to the frontal lobe. O'Leary and colleagues (1991) found that individuals with BPD had deficits in memory for complex material and for distinguishing essential from extraneous information, compared with a control group of volunteers without BPD. Similarly, Hoffman-Judd (1993) reported that outpatients with BPD had deficits in recall of complex information as well as in visuospatial tasks measuring discrimination, speed, and fluency. It is important to note, however, that some research has failed to find neurological differences between individuals with BPD and other patient populations (Cornelius et al. 1989; Ogiso 1993; Zanarini et al. 1994). More studies are clearly needed in this area.

Support for familial contributions to BPD has been suggested by several studies. It was found that the first-degree relatives of borderline patients had heightened rates of affective disorders, alcoholism and drug abuse, BPD, and closely related personality traits (see Zanarini 1993 for a review of this topic). It should be noted, however, that these positive findings do not rule out the possibility of environmental effects.

Possibilities for intrauterine effects on emotional development include malnutrition, drug and alcohol abuse, and environmental stress. The children of mothers who had these experiences demonstrated difficulties with emotion regulation similar to those of borderline individuals. For example, characteristics of fetal alcohol syndrome (resulting from excessive alcohol consumption by the mother) included hyperactivity, impulsiveness, distractibility, irritability, and sleep difficulties (Abel 1981, 1982). One study demonstrated a relationship between such intrauterine factors and BPD (see Kimble et al., Chapter 9, this volume).

Most relevant to the role of sexual abuse in a biosocial etiology of BPD are studies examining the effects of postnatal experiences on biological development. It has been well established that extreme environmental events and conditions can modify neural structures (Dennenberg 1981; Greenough 1977; Greenough et al. 1987). Recently, researchers have begun to examine the effects of childhood trauma, and of sexual abuse, specifically, on neurological development.

Hartman and Burgess (1993) proposed a thought-provoking information-processing model of the effects of sexual abuse, which asserted that the limbic system has a key role in the perception of trauma and in the short- and long-term effects of trauma. Briefly, these authors asserted that the limbic system is the primary neurological system for the integration of incoming information. When the limbic system becomes intensely activated or overwhelmed, which can be assumed to happen in many cases of sexual abuse, numbing or dissociation occurs. Chronically, this can lead to alterations in the limbic system that interact with the prefrontal cortex (Levine 1986) and can produce kindling, or sensitization to respond intensely to stimuli. In turn, according to the model, this can produce emotion dysregulation disrupting the development of neocortical pathways that affect meaning systems and the integration of experiences. In other words, sexual abuse can lead to patterns of heightened emotional arousal and emotion dysregulation in response to events or situations, which then affect subsequent perceptions, interpretations, and reactions to events or situations. This model can account for dissociative experiences, startle responses, avoidance, disrupted memory, difficulties with sexual relations, and other typical posttraumatic stress behaviors. In a sense, then, childhood trauma, and sexual abuse specifically, may actually create biological emotional vulnerability by permanently altering the central nervous system of abused children.

Two recent studies have provided preliminary support for this model. Teicher et al. (1993) investigated the relationship between childhood physical abuse and sexual abuse on limbic system functioning in adulthood, using the Limbic System Checklist-33 (LSC-33). This instrument is a self-report scale designed to measure the somatic, sensory, behavioral, and memory

symptoms that occur in temporal lobe epilepsy (and thus involve the limbic system). In their sample of 253 outpatients, those who reported a history of physical abuse had a 38% increase in LSC-33 scores, those who reported sexual abuse had a 49% increase, and those who reported both types of abuse had a 113% increase. In a separate study of 115 child and adolescent psychiatric inpatients, Ito and colleagues (1993) found significantly higher rates of electrophysiological abnormalities among patients who reported abuse (psychological, physical, and sexual) compared with those who did not report abuse. Taken together, these data suggest that childhood abuse may be related to biological abnormalities, specifically within the area of the limbic system.

This biological model is quite compatible with Linehan's components of emotion dysregulation described earlier (heightened sensitivity to stimuli, intense reactions to stimuli, and slow return to baseline). Of note here is that borderline individuals reported more severe abuse, including abuse involving violence or threat, abuse that occurred over long periods, abuse by fathers or stepfathers, and abuse by more than one perpetrator, compared with other clinical and nonclinical populations (Ogata et al. 1990). Multiple types of maltreatment have also been reported at higher rates by borderline women, including physical abuse, verbal abuse, loss, and neglect (Ogata et al. 1990; Westen et al. 1990; Zanarini et al. 1989). According to the model of Hartman and Burgess (1993), these typical experiences of borderline individuals would increase the chances that kindling of the type described would occur and that central nervous system changes would result.

Invalidating Environment

Not all children who have been sexually abused or who are born with emotional sensitivity or vulnerability develop BPD. The biosocial theory of BPD asserts that this biological predisposition to emotional vulnerability becomes problematic in an environment that does not take the vulnerability into account. This is the invalidating environment. An invalidating environment, in its most essential aspect, is one that consistently communicates to

the individual that his or her actions and reactions, both cognitive and emotional, are not appropriate or valid responses to events (Linehan 1993a). It is one in which the child's communication of private experiences (i.e., thoughts and feelings) are responded to with erratic, inappropriate, and extreme responses from caregivers. The expression of private experiences, particularly emotional reactions, is not validated. Instead, it is disregarded, trivialized, or punished.

A brief discussion of the facilitative effects of validating environments on emotional understanding and regulation will help highlight the harmful effects of the invalidating environment. In optimal environments, there is public validation for private experiences. This is how children learn to label, discriminate, and control emotions (Kohlenberg and Tsai 1991). For example, a child learns the concept of sad when the child cries and the caregiver responds "Oh, you must be sad." The caregiver may then do something soothing for the child, like rubbing his or her back. The meaning of the word sad and the child's ability to learn self-soothing skills both depend on the caregiver's consistently and accurately labeling and soothing the private bodily feeling of sadness (Kohlenberg and Tsai 1991). In addition, the child's private experience may inadvertently be shaped by the caregiver's reactions. For example, if a caregiver responds to crying with anger, the child may begin to experience anger or shame in response to his or her own crying. In other words, the child's actual experience of sadness may be partially altered, depending on these social reactions or contingencies.

Returning to the topic of BPD and the invalidating environment, the biosocial theory asserts that the invalidating environment disrupts the normal learning of emotional meaning, discrimination, and modulation. This environment tells the child that he or she is wrong in both the description and the analyses of his or her own experiences, and it attributes these experiences to prior personality traits rather than to the events actually precipitating them. Children in these environments may be told that they feel what they do not (e.g., "No matter what you say, you are angry"), like or prefer something they do not, or have done things they have not done. Expressions of negative emotions may be attributed to negative traits in the child—such as overre-

activity, paranoia, motivation to manipulate, or lack of discipline—rather than to the event to which the child is actually reacting. Positive emotions may be viewed as silly, indiscriminate, or due to the child's age, rather than to the event. Similarly, emotional responses can be pathologized by the caregiver (e.g., "You're crazy for acting like that"). Emotionally invalidating environments are also intolerant of negative displays of emotion and place high value on pulling oneself up by the bootstraps or grinning in the face of adversity. Failure to live up to these expectations is met with criticism and disapproval.

The specific consequences of the invalidating environment, therefore, at least as hypothesized by Linehan (1993a), are the following: When the child's emotional expression fails to be validated, the child does not learn how to label private experiences and may actually come to experience emotions differently. When emotions are not acknowledged, the environment does not teach the child how to regulate them or to solve problems; furthermore, extreme emotional displays become necessary in order to evoke helpful environmental responses. When those around the child do not tolerate negative emotions and and when they oversimplify the ability to solve problems, the child does not learn how to tolerate emotions or form realistic expectations. Finally, the invalidating environment does not teach the child to trust his or her own reactions as valid, and the child, therefore, distrusts or invalidates personal experiences and relies on the environment to provide information on how to feel, think, and act.

The invalidating environment can take several forms. In the next section, we describe how childhood sexual abuse and the environment in which sexual abuse frequently occurs represent the prototypical, most extreme example of emotional invalidation and the invalidating environment. It is important to reiterate, however, that the biosocial theory does not assert that the effects of invalidation are the sole cause of BPD; BPD arises from a combination and interaction of biological and environmental circumstances, and trauma is probably one of the primary influences on the biology of individuals with BPD (although not the only possible influence).

Sexual Abuse as a Prototypical Example of Invalidation

Many theorists and researchers have written about the dynamics and family environments that accompany childhood sexual abuse, including Briere (1989, 1992), Curtois (1988), Finkelhor and Browne (1986), and Sgroi et al. (1982). We have incorporated their observations, as well as our own, into this theoretical analysis.

There are several ways in which the experience of sexual abuse can be invalidating.

First, a severe form of invalidation occurs when a child's body is "invaded," particularly when this is against the child's will and happens despite the child's efforts to avoid the abuse (Finkelhor and Browne 1986). At the level of physical sensations, it is communicated that the child's pain and discomfort are irrelevant and that the child is powerless to stop them. Not only are the child's pain and protests discounted, but it is also communicated that another person's wishes and desires are more important, and what feels to the child like his or her body to control is in fact not that at all. According to Briere (1992), this can lead to "dysfunctions of the self," where the child becomes unable to define himself or herself separately from the needs of others. From our perspective, this self-invalidation may be one of the most harmful aspects of sexual abuse, and it may be closely tied to the development of BPD, which has been conceptualized as a disorder of the self (e.g., Kernberg 1975; Masterson 1976; Wastell 1992).

Second, children are frequently given confusing messages about the meaning of the abuse (Finkelhor and Browne 1986). For example, the child may be given special attention or privileges for sexual behavior while at the same time the family and community convey that this type of behavior is wrong. Similarly, children may be told that they feel different about the abuse from they way they actually do. Examples are "you like this," when in fact it is painful or unpleasant; "you want this," when in fact the child does not; "this is OK," when society says it is not. Conversely, the sexual abuse may be experienced as pleasant or arousing, yet society says that this is not appropriate. As noted above, public validation of private experiences is needed for the child to accurately label, discriminate, and modulate emotions. Such discrepancies between private experience and public label-

ing make it exceedingly difficult to make sense of and regulate one's emotional experience.

Third, the abuse is often perpetrated by a person the child is dependent on or trusts, in an environment the child views as safe. Even if the abuse was not perpetrated by a trusted person, the child may feel betrayed by lack of protection from others the child does trust (e.g., family members). The experience of harm by a trusted or needed person thus invalidates the child's perception of the person and of the child's own safety (Finkelhor and Browne 1986).

Fourth, the child is usually asked or forced to keep the abuse secret (Curtois 1988). Again, the child is not provided with external validation to match internal, private experience, and the ability to understand his or her own reactions and emotions is compromised. As Curtois noted, if others do not know of the occurrence of abuse, "the child is even less prepared and must rely on the perpetrator for whatever meaning is to be given to the experience" (p. 33).

Fifth, when the abuse is disclosed, it is very common for significant others to minimize or rationalize the abuse, especially when the abuse was perpetrated by a family member (Curtois 1988). Furthermore, the child is frequently blamed for the occurrence of the abuse or for not disclosing the abuse sooner (Finkelhor and Browne 1986). Again, public reactions contradict private experiences.

In addition to the invalidating aspects of the sexually abusive experiences specifically, other characteristics of families in which sexual abuse occurs represent prototypical examples of the invalidating environment. According to Calof (1987), sexually abusive families demonstrate the following examples of invalidation: 1) lack of tolerance for differences from the family norm, especially regarding anger and conflict, 2) strong messages about the inappropriateness of sexual relations other than with a spouse, 3) neglect and lack of physical attention, except for that which occurs in the context of sexual abuse, 4) unpredictability and intermittent reinforcement, in which the child may be cared for one day and abused the next (similarly, these families are frequently chaotic—members go in and out, and substance abuse and financial problems are common), 5) violence of other types, physical abuse, and threats of abuse.

Furthermore, invalidating families appear to have more rigid and conventional rules and standards than validating families. Curtois (1988, p. 45) lists the following commonly observed standards for social interaction held by sexually abusive families:

- 1. Don't feel. Keep your feelings in check. Do not show your feelings, especially anger.
- 2. Be in control at all times. Do not show weakness. Do not ask for help.
- 3. Deny what is really happening. Disbelieve your own senses/perceptions. Lie to yourself and to others.
- 4. Don't trust yourself or anyone else. No one is trustworthy.
- Keep the secret. If you tell, you will not be believed and you will not get help.
- 6. Be ashamed of yourself. You are to blame for everything.

These standards and characteristics are not only essentially invalidating of the child's experiences and wishes but are also strikingly similar to the standards reported by the BPD patients in our clinic and treatment studies—individuals both with and without histories of sexual abuse. To reiterate, the invalidating environment as described by Linehan's biosocial theory can take many forms; that is, it is not necessary to experience sexual abuse to develop BPD. Nonetheless, the characteristics of the invalidating environment overlap considerably with the common characteristics and traits evident in the environments where sexual abuse occurs and in the experience of sexual abuse itself.

The biosocial theory is a transactional theory. That is, the child and the environment are hypothesized to influence each other. We have been describing many of the ways in which the environment may influence the child, but there are also several ways in which the child may influence the environment. The biological predisposition to emotional vulnerability may manifest itself in ways that put the child at risk for abuse. Compared to other children, the emotionally vulnerable child may initially cry more, may have more tantrums, may seek affection more, and in general may engage in behaviors that make him or her a more salient and likely target for abuse. As the invalidating environment teaches the child that his or her thoughts, feelings, and

emotions are irrelevant, the child may become less likely to complain or to disclose the abuse. In turn, the child is at higher risk of continued abuse than are other children.

Unfortunately, much of what is described here is based on clinical observations only. Rigorous empirical validation of these theories is clearly needed.

DEVELOPMENT AND FUNCTION OF SUICIDAL BEHAVIOR

Suicidal behavior—including parasuicidal acts, suicide ideation, and suicide threats—is very common in individuals diagnosed with BPD, and it has been shown to discriminate BPD from all other personality disorders (Gunderson 1984; Morey 1988; Zanarini et al. 1990). Interestingly, recent studies also link suicidal behavior to histories of childhood sexual abuse. Among outpatients who report histories of sexual abuse, rates of previous parasuicide range from 33% to 55%, compared to 5%–34% for those who do not report abuse (Bagley and Ramsay 1985; Briere 1984, 1988; Briere and Runtz 1986; Herman and Hirschman 1981; Sedney and Brooks 1984). Indeed, Landecker (1992) suggested that suicidal behavior in individuals with BPD may be related to the traumatic aspects of childhood experiences and to sexual abuse specifically. The biosocial theory predicts that this relationship would evolve in the following ways.

Suicidal Behavior as an Emotion Regulator

Suicidal behavior is perhaps one of the most effective ways in which borderline individuals have learned to regulate painful or overwhelming negative emotions. Many individuals have reported in retrospect that the intent of the parasuicidal behavior, including suicide attempts, was to escape or end their painful feelings, including shame, anxiety, and anger. For example, in response to overdosing, many individuals sleep or experience deep physiological relaxation. This may provide temporary respite from emotions, and the sleep or rest may actually reduce the intensity of the emotions. Self-mutilation—for example, cutting

and burning—also have powerful emotion regulation effects. It is unclear what physiological mechanisms are affected by these acts, but many borderline individuals report substantial relief from intense emotions after engaging in these behaviors. Furthermore, many borderline individuals report that suicidal behavior helps them to stop dissociating, which often occurs in response to painful emotions.

Landecker (1992) reviewed studies showing, interestingly, that individuals who experienced sexual abuse (and do not meet criteria for BPD) and rape victims reported similar emotion regulation effects from parasuicidal behavior. Examples of specific reasons given for engaging in the behavior among these populations include a "means to relieve overwhelming and painful tension," "an attempt to end these frightening depersonalized feelings," and the result of an "inability to express feelings verbally" (all quotations from p. 237).

Suicidal Behavior as a Means of Getting Help

Both suicide threats and parasuicidal acts are also very effective in getting help from the environment, which can have the result of reducing painful emotions. In the invalidating environment, less extreme requests for help may be ineffective. To get help, the borderline individual must act in an extreme manner, and suicidal behavior gets attention. As an example, one of our patients reported that she "went crazy" (i.e., started cutting herself) in order to go to the hospital and escape the sexual abuse from her father. Over time, with few other skills by which to seek help, these extreme behaviors become reinforced. Indeed, suicidal behavior is one of the most effective ways that nonpsychotic individuals have of being admitted to the hospital. Similarly, suicidal behavior is reinforced by many therapists who tell their patients to contact them only in an emergency; feeling suicidal is commonly viewed as a qualifying emergency.

We now provide a brief overview of Linehan's cognitivebehavior therapy for borderline personality disorder, dialectical behavior therapy (DBT) (the interested reader is referred to the treatment manual and associated updates for a fuller description [Linehan 1993a, 1993b]). This therapy was designed to treat the problematic behaviors associated with emotion dysregulation in borderline individuals and has been demonstrated to effectively reduce suicidal behavior specifically in this population (Linehan et al. 1991). Because a thorough description of DBT is not possible here, we focus on the treatment of sexual abuse (and other past traumatic experiences) specifically within DBT.

DIALECTICAL BEHAVIOR THERAPY

As stated, DBT is, at its core, a cognitive-behavior therapy. As with standard behavior therapies, DBT presumes that attention to both skill acquisition and behavioral motivation is essential for change. In developing DBT, however, standard behavior therapies proved insufficient in treating borderline patients, for the following reasons:

1) Focusing on patient change, either in motivation or by enhancing skills, is often experienced as invalidating by traumatized individuals and precipitates withdrawal, noncompliance, and at times, early dropout from treatment. 2) Skills training to the extent believed necessary is extraordinarily difficult, if not impossible, within the context of a therapy oriented to reducing borderline behavioral patterns, including behaviors that are definite sequelae of traumatic experiences. 3) Similarly, sufficient attention to motivational issues cannot be given in a treatment with a set skill-training agenda. 4) New behavioral coping skills are difficult to remember and apply when one is in a state of crisis, making generalization of skills to other situations difficult. 5) Traumatized and borderline individuals often unwittingly reinforce therapists for iatrogenic treatment and punish them for effective treatment strategies.

To take these factors into account, Linehan (1993a) made three modifications to standard behavior therapy. First, a number of treatment strategies that better reflect acceptance and validation of the patient's current capacities and behavioral functioning were gathered and added to the treatment. The dialectical philosophical emphasis of the treatment ensures the balance of acceptance and change within the treatment as a whole and within each individual interaction. Second, treatment of the patient was

split into three components: one that focuses primarily on skill acquisition, one that focuses primarily on motivational issues and skill strengthening, and one designed explicitly to foster generalization of skills to everyday life outside the treatment context. Third, a consultation/team meeting with specific guidelines for keeping the therapist within the treatment frame was added.

In standard outpatient DBT, treatment consists of structured psychosocial individual or group therapy (for skills training), individual psychotherapy (addressing motivational and skills strengthening), telephone contact with the individual therapist (addressing generalization), and peer supervision meetings (to treat the therapist). On a psychiatric inpatient or day treatment unit, the coaching might be done by the milieu; in community mental health settings, it might be done by after-hours teams or crisis phone workers. DBT is further characterized by the biosocial theoretical perspective described above, a philosophy of dialectics, a clear hierarchy of treatment targets (the behaviors identified for change), and a set of treatment strategy groups (tactics and procedures of the therapist used to achieve change). In contrast to many behavioral approaches, DBT also places great emphasis on the therapeutic relationship.

As with other therapeutic orientations, Linehan divides therapy into several discrete stages. The division, however, is largely for heuristic purposes, because therapeutic progress usually occurs in a recursive fashion, with constant movement to previous stages and jumps to subsequent stages. Because DBT requires a voluntary, collaborative therapeutic relationship, the first stage of treatment is considered a pretreatment stage; the focuses are orientation to treatment and commitment to goals and to therapy. During this pretreatment phase, the therapist assists the patient in making an informed decision about committing to therapy and also obtains sufficient information about the patient to decide whether the therapist can work with the patient. Generally, in DBT, the minimum patient commitment is agreement by the patient that a goal of treatment is to replace maladaptive coping styles—including suicidal behaviors and impulsive dropping out of treatmentwith skillful coping behaviors. In this context, the patient and

therapist must make a (usually renewable) time-limited commitment to work together. The patient agrees to come to psychotherapy (or whatever primary mode of treatment is offered) and to actively participate in learning new behavioral skills, and the therapist agrees to offer the treatment and to be available for coaching on a reasonable schedule.

Stage 1 of DBT has as its primary focus the attainment of basic living capacities. During this phase, the targets of therapy are 1) reducing suicidal behaviors, 2) building a collaborative therapeutic relationship, 3) reducing major behavior patterns that make it impossible to have a life of reasonable quality (e.g., serious substance abuse, homelessness, frequent psychiatric hospitalizations, inability to hold a job or maintain a friendship), and 4) building skills for distress tolerance, interpersonal effectiveness, emotion regulation, self-management, and the ability to control unwanted mental activities (mindfulness skills). In general, these targets are approached hierarchically: behaviors early in this list (e.g., suicidal behavior) are worked on first until they are no longer problematic.

Stage 2, entered only after there is sufficient progress in stage 1, involves direct focus on emotionally processing past traumatic events. During this stage, exposure-based strategies are used to prompt remembering, describing, analyzing, experiencing, and desensitizing to any previous traumatic events of consequence. For individuals who have been sexually and physically abused or neglected during childhood, these events will usually take up a significant portion of this phase of treatment. However, as we noted previously, the biosocial theory of BPD offered by Linehan does not presume that abuse per se is the necessary condition for development of BPD. Invalidation, especially when it represents a threat to the individual's sense of personal integrity, is the presumed etiological condition. Thus, during stage 2, the DBT therapist helps the patient emotionally process previous experiences of serious or consequential invalidation, whether or not actual abusive behavior (in the usual sense of that word) occurred. This processing includes validation of the original events and their attendant affects and validation of the sense of outrage and disappointment that these events were initially ignored.

Because of its emphasis on exposure and emotional processing, stage 2 of DBT is similar, if not identical at times, to other treatments, including the exposure-based treatment developed by behavior therapists (e.g., Foa et al. 1991), the uncovering treatments proposed by psychodynamic therapists (e.g., Herman 1992), and the trauma-specific treatments developed by Briere (1989, 1992).

Emotional processing of traumatic experiences occurs in stage 2 of DBT primarily because it is crucial that patients first learn the skills to cope with the intense emotions evoked in the course of this work (e.g., emotion regulation and distress tolerance skills). Without these skills, patients may resort to the maladaptive ways they had learned to cope in the past—for example, suicidal behavior, drugs and alcohol, and dissociation. It is important to note, however, that histories of sexual abuse, physical abuse, emotional abuse, neglect, and other forms of invalidation are always assessed early in treatment. It is further explained to patients that these experiences are important and may be discussed later in treatment, but first the focus will be on developing basic living capacities in order to make processing of these experiences possible.

This is not to imply that patients' reports of abuse or trauma are ignored in stage 1 of DBT, because it is quite common for patients to report memories or flashbacks during this time. Abuse may be discussed during stage 1 to the extent that it is relevant to the target behavior. For example, a precipitant to suicidal behavior might be flashbacks of abuse. Therapy may then focus on developing ways other than suicidal behavior to cope with these flashbacks.

Overlapping with the first two stages, and forming the final stage of therapy, is a focus on developing the ability to trust the self; to validate one's own opinions, emotions, and actions; and in general to respect oneself independently of the therapist and of other people. As discussed earlier, these issues are central for individuals who have experienced severe invalidation, and sexual abuse specifically. Stage 3, therefore, focuses on increasing self-respect and achieving individual goals of the patient. The goal here is to "be able to rely on oneself while remaining firmly within reciprocal interpersonal networks" (Linehan 1993a,

p. 173). Thus, a further goal is to strengthen the patient's sense of personal connection to the present—connections that either were never formed or were severed during traumatic episodes. Enhancing self-respect also requires the reduction of residual self-hate and shame that often remains after desensitization to abuse memories. Termination from intensive therapy (but not necessarily from the therapist or from intermittent therapy sessions) is also accomplished during this stage.

CONCLUSION

We have described Linehan's biosocial theory of the etiology of BPD, the role of sexual abuse specifically within this population, and Linehan's cognitive-behavior treatment for BPD. The major premises are that a necessary component in the development of BPD is an invalidating environment and that childhood sexual abuse represents a prototypical example of extreme invalidation. However, sexual abuse per se may or may not be present, because invalidation can take many forms. This theory has important implications for clinicians working with borderline patients. It is not uncommon for professionals to question the reliability of borderline patients' reports of abuse. In contrast, the biosocial theory asserts that if extreme or pervasive invalidation did occur, the actual form the invalidation took is, in a sense, irrelevant. The risk of disbelieving the borderline patient is that the therapist may potentially re-create the invalidating environment. Furthermore, as reported in many different contexts in this volume, there is extensive research linking reports of childhood sexual abuse and the development of BPD, and no research to date suggests that these reports are inaccurate.

REFERENCES

Abel EL: Behavioral teratology of alcohol. Psychol Bull 50:564–581, 1981 Abel EL: Consumption of alcohol during pregnancy: a review of effects on growth and development of offspring. Hum Biol 54:421–453, 1982

Bagley C, Ramsay R: Disrupted childhood and vulnerability to sexual assault: long-term sequels with implications for counseling. Journal of Social Work and Human Sexuality 4:33–48, 1985

Bower GH: Mood and memory. Am Psychol 36:129-148, 1981

Briere J: The effects of childhood sexual abuse on later psychological functioning: defining a "post-sexual-abuse syndrome." Paper presented at the Third National Conference on Sexual Victimization of Children, Washington, DC, April 1984

Briere J: The long-term clinical correlates of childhood sexual victimization. Ann N Y Acad Sci 528:327–334, 1988

Briere J: Therapy for Adults Molested as Children: Beyond Survival. New York, Springer, 1989

Briere J: Child Abuse Trauma: Theory and Treatment of the Lasting Effects. Newbury Park, CA, Sage, 1992

Briere J, Runtz M: Suicidal thoughts and behaviours in former sexual abuse victims. Canadian Journal of Behavioural Sciences 18:413–423, 1986

Briere J, Zaidi LY: Sexual abuse histories and sequelae in female psychiatric emergency room patients. Am J Psychiatry 146:1602– 1606, 1989

Bryer JB, Nelson BA, Miller JB, et al: Childhood sexual and physical abuse as factors in adult psychiatric illness. Am J Psychiatry 144:1426–1430, 1987

Calof D: Treating adult survivors of incest and child abuse. Workshop presented at The Family Network Symposium, Washington, DC, 1987

Cornelius JR, Soloff PH, George AWA, et al: An evaluation of the significance of selected neuropsychiatric abnormalities in the etiology of borderline personality disorder. Journal of Personality Disorders 3:19–25, 1989

Cowdry RW, Pickar D, Davies R: Symptoms and EEG findings in the borderline syndrome. Int J Psychiatry Med 15:201–211, 1985

Curtois CA: Healing the Incest Wound: Adult Survivors in Therapy. New York, WW Norton, 1988

Dennenberg VH: Hemispheric laterality in animals and the effects of early experience. Behavioral and Brain Sciences 4:1–49, 1981

Finkelhor D, Browne A: Initial and long-term effects: a conceptual framework, in A Sourcebook on Child Sexual Abuse. Edited by Finkelhor D. Newbury Park, CA, Sage, 1986, pp 180–198

D. Newbury Park, CA, Sage, 1986, pp 180–198
Foa EB, Rothbaum BO, Riggs D, et al: Treatment of post-traumatic stress disorder in rape victims. J Consult Clin Psychol 59:715–723, 1991

Gilligan SG, Bower GH: Cognitive consequences of emotional arousal, in Emotions, Cognition, and Behavior. Edited by Izard CE, Kagan J, Zajonc RB. Cambridge, England, Cambridge University Press, 1984, pp 547–588

Goldman SJ, D'Angelo EJ, DeMaso DR, et al: Physical and sexual abuse histories among children with borderline personality disorder. Am J Psychiatry 149:1723–1726, 1992

- Greenough WT: Experimental modification of the developing brain, in Current Trends in Psychology. Edited by Janis IL. Los Altos, CA, William Kaufmann, 1977, pp 82–90
- Greenough WT, Black JE, Wallace CS: Experience and brain development. Child Dev 58:539–559, 1987
- Gunderson J: Borderline Personality Disorder. Washington, DC, American Psychiatric Press, 1984
- Hartman CR, Burgess AW: Information processing of trauma. Child Abuse Negl 17:47–58, 1993
- Herman JL: Trauma and Recovery. New York, Basic Books, 1992
- Herman JL, Hirschman L: Families at risk for father-daughter incest. Am J Psychiatry 138:967–979, 1981
- Herman JL, Perry JC, van der Kolk BA: Childhood trauma in borderline personality disorder. Am J Psychiatry 146:490–495, 1989
- Hoffman-Judd P: Neuropsychological dysfunction in borderline personality disorder. Paper presented at the Third International Congress on the Disorders of Personality, Cambridge, MA, September 1993
- Ito Y, Teicher MH, Glod CA, et al: Increased prevalence of electrophysiological abnormalities in children with psychological, physical, and sexual abuse. J Neuropsychiatry Clin Neurosci 5:401–408, 1993
- Kernberg OF: Borderline Conditions and Pathological Narcissism. New York, Jason Aronson, 1975
- Kohlenberg RJ, Tsai M: Functional Analytic Psychotherapy: Creating Intense and Curative Therapeutic Relationships. New York, Plenum, 1991
- Landecker H: The role of childhood sexual trauma in the etiology of borderline personality disorder: considerations for diagnosis and treatment. Psychotherapy 29:234–242, 1992
- Levine P: Stress, in Psychophysiology: Systems, Processes and Applications. Edited by Coles M, Donchin E, Porges S. New York, Guilford, 1986, pp 331–353
- Linehan MM: Dialectical behavior therapy for borderline personality disorder. Bull Menninger Clin 51:261–276, 1987
- Linehan MM: Cognitive-Behavioral Treatment for Borderline Personality Disorder. New York, Guilford, 1993a
- Linehan MM: Skills Training Manual for Treatment of Borderline Personality Disorder. New York, Guilford, 1993b
- Linehan MM, Armstrong HE, Suarez A, et al: Cognitive-behavioral treatment of chronically parasuicidal borderline patients. Arch Gen Psychiatry 48:1060–1064, 1991
- Ludolph PS, Westen D, Misle B, et al: The borderline diagnosis in adolescents: symptoms and developmental history. Am J Psychiatry 147:470–476, 1990
- Masterson JF: Psychotherapy of the Borderline Adult: A Developmental Approach. New York, Brunner/Mazel, 1976

Morey LC: A psychometric analysis of the DSM-III-R personality disorder criteria. Journal of Personality Disorders 2:109–124, 1988

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- Ogata SN, Silk KR, Goodrich S, et al: Childhood sexual and physical abuse in adult patients with borderline personality disorder. Am J Psychiatry 147:1008–1013, 1990
- Ogiso Y: Relationship between clinical symptoms and EEG findings in borderline personality disorder. Paper presented at the Third International Congress on the Disorders of Personality, Cambridge, MA, September 1993
- O'Leary KM, Brouwers P, Gardner DL: Neuropsychological testing of patients with borderline personality disorder. Am J Psychiatry 148:106–111, 1991
- Sedney MA, Brooks B: Factors associated with a history of childhood sexual experience in a nonclinical female population. J Am Acad Child Adolesc Psychiatry 23:215–218, 1984
- Sgroi SM, Blick LC, Porter FS: A conceptual framework for child sexual abuse, in Handbook of Clinical Intervention in Child Sexual Abuse. Edited by Sgroi SM. Lexington, MA, Lexington Books, 1982, pp 9–37
- Shearer SL, Peters CP, Quaytman MS, et al: Frequency and correlates of childhood sexual and physical abuse histories in adult female borderline inpatients. Am J Psychiatry 147:214–216, 1990
- Snyder S, Pitts WM: Electroencephalography of DSM-III borderline personality disorder. Acta Psychiatr Scand 69:129–134, 1984
- Teicher MH, Glod CA, Surrey J, et al: Early childhood abuse and limbic system ratings in adult psychiatric outpatients. J Neuropsychiatry Clin Neurosci 5:301–306, 1993
- Wastell CA: Self psychology and the etiology of borderline personality disorder. Psychotherapy 29:225–233, 1992
- Westen D, Ludolph P, Misle B, et al: Physical and sexual abuse in adolescent girls with borderline personality disorder. Am J Orthopsychiatry 60:55–66, 1990
- Zanarini MC: BPD as an impulse spectrum disorder, in Borderline Personality Disorder: Etiology and Treatment. Edited by Paris J. Washington, DC, American Psychiatric Press, 1993, pp 67–85
- Zanarini MC, Gunderson JG, Marino MF, et al: Childhood experiences of borderline patients. Compr Psychiatry 30:18–25, 1989
- Zanarini MC, Gunderson JG, Frankenburg FR, et al: Discriminating borderline personality disorder from other Axis II disorders. Am J Psychiatry 147:161–167, 1990
- Zanarini MC, Kimble CR, Williams AA: Neurological dysfunction in borderline patients and Axis II control subjects, in Biological and Neurobehavioral Studies of Borderline Personality Disorder. Edited by Silk KR. Washington, DC, American Psychiatric Press, 1994, pp 159–175